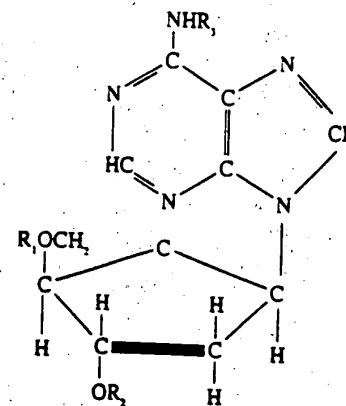


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-47 (cancelled).

48 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxyadenosine, having the formula

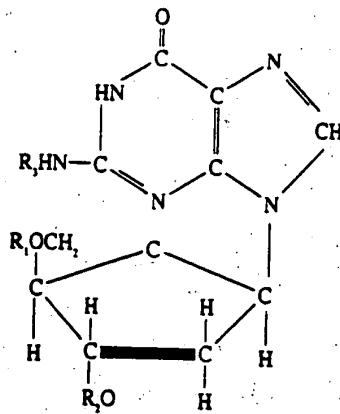


wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R_1 , R_2 , and R_3 are H, and where R_3 is not H, then R_1 and/or R_2 may also be acetyl, or a pharmaceutically acceptable salt thereof.

49 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxyguanosine having the formula

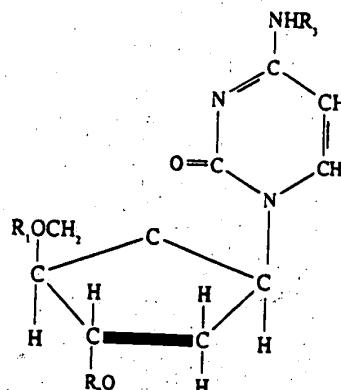


wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms;
- (b) an amino acid selected from the group consisting of glycine, the L forms of
alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine,
methionine, aspartic acid, glutamic acid, arginine, lysine, histidine, phenylalanine,
tryptophane, and ornithine;
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R₁, R₂, and R₃ are H, and where R₃ is not H, then R₁ and/or R₂ may also be acetyl, or a pharmaceutically acceptable salt thereof.

50 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxycytidine, having the formula

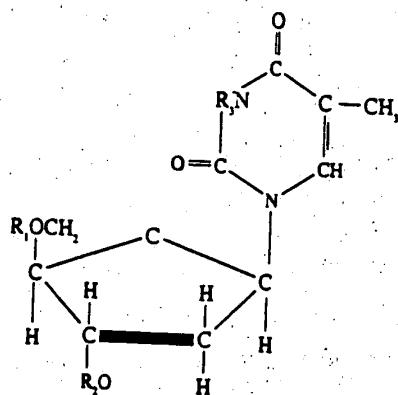


wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R₁, R₂, and R₃ are H, and where R₃ is not H, then R₁ and/or R₂ may also be acetyl, or a pharmaceutically acceptable salt thereof.

51 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

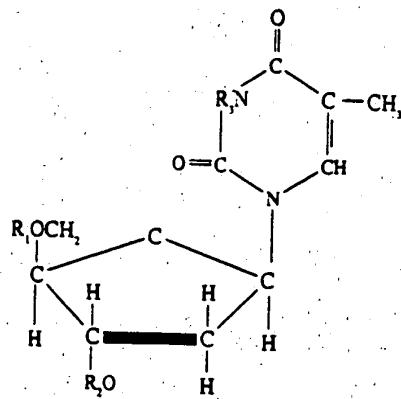


wherein R₁ is an acyl group derived from

- (a) an unbranched fatty acid with 3 to 15 or 17 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, and R₂ and R₃ are H, or a pharmaceutically acceptable salt thereof.

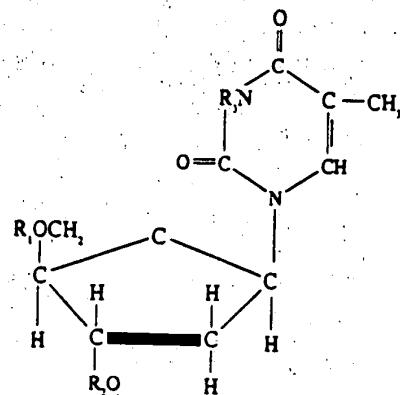
52 (previously presented) A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula



wherein R₁ is H, R₂ is an acyl group derived from

- (a) an unbranched fatty acid with 3 to 13 or 15 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is H or a pharmaceutically acceptable salt thereof.

53 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

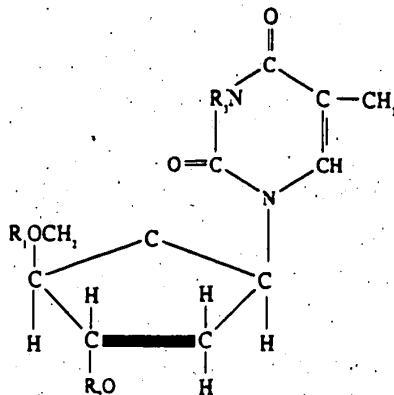


wherein R₁ and R₂ are the same or different and each is an acyl group derived from

- (a) an unbranched fatty acid with 5 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is H or a pharmaceutically acceptable salt thereof.

54 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to

said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

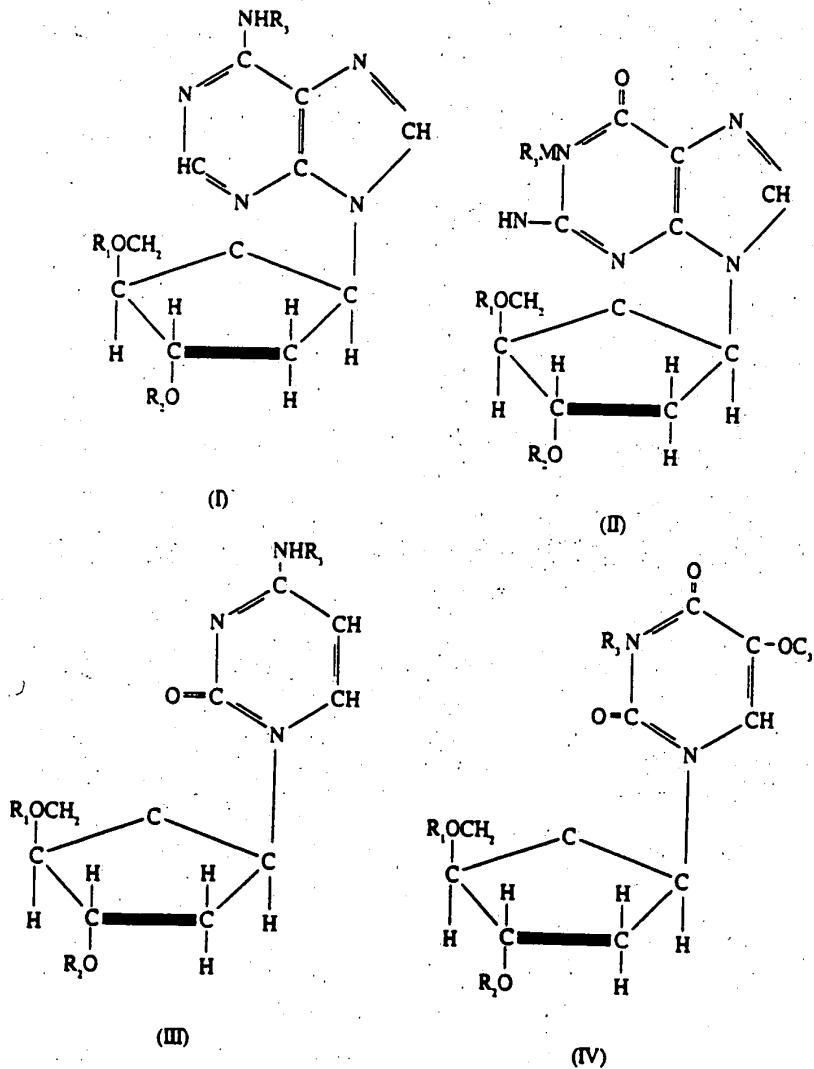


wherein R₁ and R₂ are the same or different and each is an acyl group derived from

- (a) an unbranched fatty acid with 2 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is an acyl group derived from an optionally substituted benzoyl or heterocyclic carboxylic acid that is substantially nontoxic, or a pharmaceutically acceptable salt thereof.

55 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to

said animal an effective amount of each of at least two compounds selected from at least two of the groups of compounds having formulae



wherein R₁, R₂, and R₃ are the same or different and each is H or an acyl group derived from a carboxylic acid, provided that at least one of said substituents R₁, R₂,

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and R₃ on each of said groups of compounds is not hydrogen, or pharmaceutically acceptable salts thereof.

Claims 56-63 (cancelled).